REMARKS

Claims 1-16 are pending in the present application remain in this application. Claims 6-10 and 13 were amended in this response. No new matter has been introduced. Favorable reconsideration is respectfully requested.

Claims 1-16 were rejected under 35 U.S.C. §103(a) as being unpatentable over *Shimojoh* (U.S. Patent No. 6,344,914). For the following reasons, Applicants respectfully submit that the claims of the present application are patentable over the art of record and respectfully request that the rejections be withdrawn.

Specifically, *Shimojoh* does not disclose a control method for compensating changes in an SRS-Induced Power Exchange, comprising "providing at least two systems which operate at different speeds to influence tilting of a spectrum of data signals in the optical data transmission path; measuring a change in overall power in the optical data transmission path via at least one quicker system of the at least two systems; and compensating the tilting by changing a power of at least one injected filling light source via the at least one quicker system." as recited in claim 1. Furthermore, *Shimojoh* does not disclose the features of "at least one path section arranged between the at least one multiplexer and the demultiplexer for determining and compensating spectral tilting of transmitted data signals, the at least one path section including a part for measuring an overall intensity of the transmitted data signals, at least one controlled filled light source for injecting light power into the at least one path section, and a part for controlling power of the filled light source to compensate power fluctuations of the overall intensity of the transmitted data signals" as recited in claim 8.

Shimojoh discloses a gain equalizer, which includes a plurality of optical filters to equalize the gain of an optical amplifier, whereas the present claims disclose a control method and optical data transmission path for compensating changes in an SRS-induced power exchange. The power exchange between individual wavelength channels caused by the Stimulated Raman Scattering (SRS) process results in a tilting of the spectrum of the data signals. This SRS-induced tilting can be compensated by influencing the tilting of the gain spectrum of an EDFA amplifier. The present claims provide a faster control method to compensate the Raman induced tilting. More specifically, the claims include a dynamic aspect, since a control mechanism provides a fast power management when channels are connected into

or disconnected from the optical transmission path. The fast control mechanism recited in claim 1 is combined, with a slow control mechanism, which adjusts the tilting of the gain spectrum of the EDFA amplifier. The fast control mechanism contains a filling light source which adds or reduces power in the transmission path during the time period, the slow control of the EDFA needs until the tilting is compensated. This feature is also recited in claim 8.

In *Shimojoh*, the SRS-induced tilting is not addressed at all in the disclosure. The reference teaches that a plurality of optical filters are connected and transparency characteristics of the filters are controlled to adjust parameters such as period, phase, and amplitude of the waveform of the optical signal either in front of or behind an EDFA (col. 3, lines 24-39). Under this configuration, the gain spectrum of the optical amplifier is flattened. In Fig. 12 of *Shimojoh*, an amplification and equalization device is disclosed, where the upper and lower path represents one system. The upper path represents the transmission line, the lower path contains the control system for the amplifier and the filters (col. 11, lines 16-60). Thus, in *Shimojoh* only <u>one</u> control system 16 is provided.

In contrast, the present claims utilize two systems comprising a quick control means 14 (further detailed in the specification on page 9, line 7) and a slow controller 13 (further detailed in the specification on page 9, line 11). Power measurement (see reference 3 in Fig. 2) is connected to the quick control means 14, which controls the filling laser. The filling laser adds or reduces the power level in the optical transmission path during the time period the slow control system needs to adjust the tilting inside the EDFAs.

In *Shimojoh*, the laser diodes 12 are pump sources for the EDFA 10, and deliver the energy for the amplification process of the EDFA 10. In the present claims, the filling light source helps to overcome dynamic power changes in the transmission line as caused by the SRS-induced tilting or as caused by connecting or disconnecting channels. This is also described in the specification on page 9, line 3 to 19. Claim 8 recites an optical transmission line having at least one means for the control of the tilting in at least one transmission section. However, the transmission line in Fig.1 of *Shimojoh* doesn't show any characteristics of influencing SRS-induced tilting along a transmission line. Also, a filling light source is not mentioned at all in the *Shimojoh* reference. As a result, *Shimojoh* cannot disclose the feature of two control systems, the feature of compensating any tilting or the feature of the filling light source.

In light of the above, Applicants respectfully submit that independent claims 1 and 8 of the present application, as well as claims 2-7 and 9-16 which respectfully depend therefrom, are both novel and non-obvious over the art of record. Accordingly, Applicants respectfully request that a timely Notice of Allowance be issued in this case. If any additional fees are due in connection with this application as a whole, the Examiner is authorized to deduct such fees from deposit account no. 02-1818. If such a deduction is made, please indicate the attorney docket no. (0112740-278) on the account statement.

Respectfully submitted,

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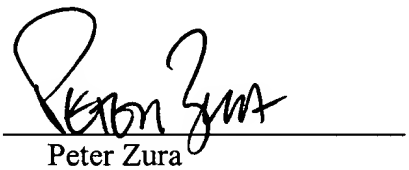
BY 

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